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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/724,762

12/02/2003

Shingo Nozawa

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EXAMINER

DANG, HUNG Q

ART UNIT

PAPER NUMBER

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MAIL DATE

DELIVERY MODE

09/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/724,762	Applicant(s) NOZAWA, SHINGO	
	Examiner Hung Q. Dang	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4 and 25-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/01/2008 has been entered.

Response to Arguments

Applicant's arguments filed 09/17/2008 have been fully considered but they are not persuasive.

At page 3, Applicant argues that Kojima "does not teach or suggest performing encoding to generate and picture for every n pictures."

In response, the Examiner respectfully disagrees. At column 4, lines 22-25, Kojima discloses encoding a video stream in accordance with MPEG scheme. The encoded stream is shown in Fig. 1 and further described in column 1, lines 55-57, in which at least one frame is extracted out of every 15 frames and encoded using intra-frame encoding. For that reason, Kojima clearly discloses the feature of "performing encoding to generate and picture for every n pictures." It is noted that this is the video stream that is encoded before any operations on scene change detections. As such, Applicant's arguments at pages 3-4 that lead to the assertion of "This clearly means that the I pictures to be generated for every 15 frames is changed to the P picture, and

eventually, the I picture is not generated for every 15 frames" based on the references to sections in Kojima that describes changes of I and P frames when a scene change occurs is erred.

Also at page 4, Applicant further argues that, "nothing in Kojima et al., would teach or suggest controlling an encoding to generate an I picture for every n pictures, if a recording start instruction is detected ... and nothing in Enari would remedy the deficiency of Kojima et al. as a reference against those claims." In response, the Examiner respectfully submits that the claim language does not recite such a feature. For example, claim 1 recites that when a recording start instruction is detected, the number of the I pictures "interposed between the adjacent pictures each extracted for every n pictures while generating the intra-encoded picture for every n pictures" is changed. In other words, for instance, if the original video stream has two I-frames every n pictures, then, when a recording start instruction is detected, the video stream since then will have only one I-frame, or three frames, etc or even no I-frame at all, for every n pictures. This is exactly what Kojima discloses in Fig. 12A and 12 B and at column 10, lines 24-32 (it is noted that in Kojima, the number of intra-encoded frames is not only changed but also reduced). In Fig. 12A and Fig. 12B, in GOP2 which corresponds to the n frames enclosed between two events of scene changes, the number of intra-frame is reduced from two frames (in Fig. 12A) to only one frame as shown in Fig. 12B, thus, minimizing the number of intra-frames in a scene change (column 10, lines 24-32).

For ongoing reason, the Examiner concludes that Kojima discloses every features of the independent claims except that, instead of the event of a recording start instruction being detected, it is a scene detection disclosed in Kojima.

Enari in the same field of endeavor discloses changing the encoding structure of the video stream in the event of a recording start instruction being detected.

It is obvious to one of ordinary skill in the art to incorporate the teachings of Enari into those of Kojima by simply replacing the event of scene change detection with the event of a recording start instruction being detected. Such a combination would obviously yield the same result as recited in the claims.

Applicant's arguments filed 08/01/2008 have been fully considered but they are also not persuasive.

At pages 10-12, Applicant argues that, the combination of Kojima and Enari] proposed by the Examiner also would not be able to achieve the technological advances achieved by aspects of Applicant's invention relating to claims 1 and 25.

In response, the Examiner also disagrees for the reasons as described above.

Therefore, the rejections stand as previously presented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. (US Patent 6,057,893) and Enari (US Patent 5,774,624).

Regarding claim 1, Kojima et al. disclose an image pickup apparatus (column 2, lines 50-65), comprising: image pickup means (column 2, lines 56-58); encoding means for encoding a moving image signal output from the image pickup means using an intra-encoding method and an inter-encoding method to generate an encoded image signal (column 2, lines 50-65), including an intra-encoded picture encoded by the intra-encoding method and an inter-encoded picture encoded by the inter-encoding method (Fig. 1; column 2, lines 50-65); encoding means extracting an image signal of a picture for every n pictures (n being an integer greater than or equal to two) from the moving image signal and encoding the extracted image by the intra-encoding method, thereby generating the intra-encoded picture for every n pictures (Fig. 1; column 1, lines 55-57; column 2, lines 50-65; column 4, lines 22-25; also see “Response to Arguments” above); and the encoding means being arranged to encode the image signals of a plurality of pictures included between the adjacent pictures each extracted for every n pictures by one of the intra-encoding method and the inter-encoding method (Fig. 1; column 1, lines 55-57; column 2, lines 50-65; column 4, lines 22-25; also see “Response to Arguments” above); recording means for recording the encoded image signal generated by the encoding means on a recording medium (Fig. 6; column 3, line 66 – column 4, line 2); transmission means for transmitting the encoded image signal generated by the encoding means to an external apparatus while maintaining an

encoded state of the encoded image signal (Fig. 6; abstract); and control means for controlling the encoding means and the recording means in accordance with an event, occurs during transmission of the encoded image signal by the transmission means, change a number of the intra-encoded pictures interposed between the adjacent pictures each extracted for every n pictures while generating the intra-encoded picture for every n pictures if when the event occurs (column 10, lines 25-32; Fig. 12A; Fig. 12B; also see "Response to Arguments" above).

However, Kojima et al. do not disclose said event to be an issuance of a recording instruction.

Enari discloses an event to cause a change of encoding scheme to be an issuance of a recording instruction (Fig. 5A; Fig. 5B; column 3, lines 50-58).

One of ordinary skill in the art at the time the invention was made would have been motivated to modify the apparatus disclosed by Kojima et al. to change the encoding-scheme in accordance to an issuance of a recording instruction as disclosed by Enari in order to, according to Enari, achieve a high compression ratio without degrading image quality.

Regarding claim 4, Kojima et al. also disclose the control means further controls the encoding means to reduce the number of the intra-encoded pictures interposed between the adjacent pictures each extracted for every n pictures while generating the intra-encoded picture for every n pictures (Fig. 12A; Fig. 12B; column 10, lines 24-32; also see "Response to Arguments" above).

Regarding claim 25, Kojima et al. disclose an image pickup apparatus (column 2, lines 50-65), comprising: image pickup means (column 2, lines 56-58); encoding means for encoding a moving image signal output from the image pickup means using an intra-encoding method and an inter-encoding method to generate an encoded image signal (column 2, lines 50-65), including an intra-encoded picture encoded by the intra-encoding method and an inter-encoded picture encoded by the inter-encoding method (Fig. 1; column 2, lines 50-65); encoding means extracting an image signal of a picture for every n pictures (n being an integer greater than or equal to two) from the moving image signal and encoding the extracted image by the intra-encoding method, thereby generating the intra-encoded picture for every n pictures (Fig. 1; column 1, lines 55-57; column 2, lines 50-65; column 4, lines 22-25; also see “Response to Arguments” above); and the encoding means being arranged to encode the image signals of a plurality of pictures included between the adjacent pictures each extracted for every n pictures by one of the intra-encoding method and the inter-encoding method (Fig. 1; column 1, lines 55-57; column 2, lines 50-65; column 4, lines 22-25; also see “Response to Arguments” above); recording means for recording the encoded image signal generated by the encoding means on a recording medium (Fig. 6; column 3, line 66 – column 4, line 2); transmission means for transmitting the encoded image signal generated by the encoding means to an external apparatus while maintaining an encoded state of the encoded image signal (Fig. 6; abstract); and control means for controlling the encoding means and the recording means in accordance with an event, occurs during transmission of the encoded image signal by the transmission means, so

as to change a rate of intra-encoded pictures interposed between the adjacent pictures each extracted for every n pictures while generating the intra-encoded picture for every n pictures if when the event occurs (column 10, lines 25-32; Fig. 12A; Fig. 12B; also see “Response to Arguments” above).

However, Kojima et al. do not disclose said event to be an issuance of a recording instruction.

Enari discloses an event to cause a change of encoding scheme to be an issuance of a recording instruction (Fig. 5A; Fig. 5B; column 3, lines 50-58).

One of ordinary skill in the art at the time the invention was made would have been motivated to modify the apparatus disclosed by Kojima et al. to change the encoding-scheme in accordance to an issuance of a recording instruction as disclosed by Enari in order to, according to Enari, achieve a high compression ratio without degrading image quality.

Claim 26 is rejected for the same reason as discussed in claim 4 above.

Claim 27 is rejected for the same reason as discussed in claim 1 above.

Claim 28 is rejected for the same reason as discussed in claim 4 above.

Claim 29 is rejected for the same reason as discussed in claim 25 above.

Claim 30 is rejected for the same reason as discussed in claim 4 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621